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## A SPECIAL REPORT

To: ALL RURAL RESIDENTS

From: MONTANA RURAL SAFETY COMMITTEE

Subject: RURAL ACCIDENTS

APRIL 1956

CHAIRMAN: ALBERT H. KRUSE,  
COMMISSIONER OF AGRICULTURE

SECRETARY: ERIC B. WILSON,  
MONTANA EXTENSION SERVICE

## INTRODUCTION

At a meeting in Helena, on March 28, 1956, the Montana Rural Safety Committee selected Rural Accident Reporting as it's project for the coming year, beginning May 1, 1956.

In conjunction with this project and as a preliminary guide to the reporting of accidents, the tables and general summary on the following pages have been prepared from data reported to the Montana Industrial Accident Board by the farmers and ranchers enrolled under the Montana Workman's Compensation Act during the period of July 1954 through June 1955. While this material represents only a small portion of the injuries that occurred to the rural populace it is nevertheless a fair example of the type of accidents that happen on the farm and ranch. It will give the individual some idea of the manner in which a multitude of accidents can be classified and tabulated to create a picture of the seriousness of rural accidents over a certain period of time, a certain area or over the entire state.

It must be remembered that the data contained herein, has been classified in a general manner and is only a segment of the injuries reported to the board during a years time. A more detailed study should be possible when all activities are confined to rural accidents only.

Factors tabulated are the accident type; agency of the accident; nature of the injury; body part affected; time of the injury and age of the injured.

### AGENCY:

The agency is the object, substance, radiation or person which caused or permitted the occurrence of the selected accident, or in some cases, is the object, substance, etc., which is the closest in time and place to the occurrence of the selected accident.

### TYPE:

The type is the term used to describe or connect the act, motion or contact between the agency and the injured person, which in turn produces the accident and injury.

### NATURE OF INJURY:

The resulting wound, or physical damage arising from the accident.

### SPECIAL NOTE:

The agency, accident type, and nature of injury are segregated into groups that are of a similar nature. In many cases, however, there are many objects, acts, etc., that are not closely related to any one category and are so numerous and yet are not repetitive enough to make specific tabulation of any value. Classification of these factors are therefore very general in scope.

Flying particles are one of the most common agencies and where reports are completed they are usually assigned to the parent agency-i.e., chips or splinters flying from a power saw would be assigned to the saw and the saw in turn would be the agency tabulated.

Slips are classified under falls ordinarily and strains and sprains resulting from overexertion are likewise classified separately. In a great number of cases, however, strains as a result of slipping may be classified under the strain or overexertion group due to insufficient data on the report.

#### SUMMARY

A total of 1,100 injuries were reported by 652 employers. Of this total 585 indicated that the injured lost time from the job; 379 indicated no loss of time but required medical attention and 136 did not state whether or not time was lost. Only 1 fatal accident was reported; 8 injuries resulted in amputations of a specific body part; and the remaining 1,991 appeared to be of a temporary nature at the time the injury was reported. Many of these later proved to be permanently disabling to some degree.

#### AGENCY:

In today's mechanical world it is somewhat ironic that animals, as a major agency, proved to be the most injurious in Montana agriculture.

241 persons were injured by animals; 94 were caused by falls either from, or with horses. One person was fatally injured when he was drug by his saddle horse. It was presumed that his horse fell and he caught his foot in the stirrup. He was alone at the time.

46 injuries were the result of kicks; 14 due to bites and stings; 5 were due to runaways; 1 from contagious diseases, and the remainder due to other causes or the cause was not stated.

Machines caused 136 injuries. There did not appear to be any one specific part that was responsible for a majority of the injuries. Moving parts, and the point of operation were indicated as the most hazardous places.

Working surfaces were responsible for 134 injuries. A study of the condition of working surface did not indicate any one condition as a frequent or predominating contributing factor.

Hand tools accounted for 112 injuries; 50 as a result of the tool glancing or slipping in use; 20 from chips and particles set in motion by the tool. The remainder were due to miscellaneous conditions or actions.

Vehicles accounted for 94 injuries, 47 of which were due to moving motor vehicle accidents.

For further details see Chart I.

#### ACCIDENT TYPE:

The "accident type" is possibly the most informative of the various factors used in accident analysis so far as cause is concerned, especially if the results are to be interpreted by the layman. It would be difficult to give a brief, but at the same time, thorough summarization of this particular factor, and it is believed that a careful study of Chart II will prove to be the most informative.

#### NATURE OF INJURY AND BODY PART AFFECTED:

Strains, sprains, and dislocations were the most common natures of injuries and in most cases (116 out of 254) the back and spinal column was affected. Injuries of this nature have proven to be extremely disabling and painful, as well as costly.

Cuts or lacerations was the second most common, 251 cases, and involved the hand and fingers in about 50% of the cases.

173 fractures were reported, and fractures of the lower extremities occurred in about 33% of the total.

Sure to appear in great numbers in almost any study of any industry is the lowly foreign body in the eye. While usually not considered serious, it is probably one of the most irritating in many ways. It never causes too much time to be lost from the job, but it is sure to incapacitate the person involved for at least part of the day. It slows production, usually requires at least one trip to the doctor, and is bound to prey on the disposition of all persons concerned. It is also one of the most difficult injuries to eliminate. 94 such injuries (about 10%) occurred in the agricultural industry.

For further detail on the nature of injury see Chart III.

#### TIME OF INJURY:

Chart V shows us the time accidents occur most frequently. For some reason the hour of 10 A.M. to 11 A.M. is when injuries are the most frequent. This is true in most industrial classifications and is true throughout the country.

The summer months of July, August, and September are the months when most injuries occur, which is of course, when employment is at its peak.

Chart IV gives us the age and marital status of the injured. This data does not have a great deal of value perhaps, but may prove interesting to some degree.

#### SPECIAL NOTE:

A warning note is in order at this time for those who are responsible for reporting injuries to any tabulating agency.

The accuracy of any statistical study is dependent to a great extent on the accuracy of data reported. Follow these rules:

1. Be specific and concise.
2. Avoid trade names and slang expressions.
3. Avoid delay in reporting.

For those who are classifying data, attempt to be as detailed as possible and as descriptive as possible. Know what information you want as a final result.

Common sense should always be considered a prime factor by all concerned.

## CHART I

 AGENCY  
 BY  
 ACCIDENT TYPE

	TOTAL	STRUCK BY OR STRIKING AGAINST	CAUGHT IN OR BETWEEN	FALLS	ACCIDENTS INVOLVING MOTOR VEHICLES	STRAIN OR OVEREXERTION	CONTACT WITH TEMPERATURE EXTREMES	INHALATION, ABSORPTION OR SWALLOWING	CONTACT WITH ELECTRIC CURRENT	FOREIGN BODY IN EYE	OTHER, NOT STATED OR UNCLASSIFIED
MACHINES	136	70	36	7	5	11	2				4
BALER, HAY	10	3	7								
COMBINE	13	8	1			1	1				2
GRINDER OR ABRASIVE WHEEL	8	8									
GRINDERS, OTHER	7	6	1								
IMPLEMENTS, TYPE NOT STATED	33	12	9	3	3	6					
TOWERS	12	5	6	1		1					
RAKES	8	5	1	1		1					1
STACKER, HAY	5	3	1	1							
ALL OTHERS	40	20	10	2	2	3	2				1
ELEVATORS, HOISTING APPARATUS, CONVEYORS	12	4	6	1					1		1
ELEVATORS	4	2	2								
HOISTING APPARATUS	3	1		1					1		
CONVEYORS	5	1	4								
VEHICLES	94	20	22	15	42	6	1				1
AUTOMOBILE	3				3						
TRUCKS	34	6	4	2	22						
TRACTORS	35	8	4	4	14	4	1				
HORSE DRAIN	6	2		4							
ALL OTHERS	16	4	1	5	3	2					1
HAND TOOLS	112	100	2	2		2	1				
AXE OR PICK	13	13									
HAMMERS	12	11				1					
HOOKS	11	10				1					
KNIFE	15	14		1		2					
FORK	13	11				1					
SAWS	12	12				3	1				
ALL OTHERS	36	29	2	1							
CHEMICALS, HOT SUBSTANCES, DUSTS, AND OTHER INJURIOUS SUBSTANCES	22	2					2	10		5	2
WORKING SURFACES	134	6		123							5
DITCHES, TRENCHES, ETC.	5			5							
PILES, STACKS OF MATERIAL	12			12							
RAMPS, RUNWAYS, PLATFORMS, ETC.	4			4							
STAIRS, STEPS	3			3							
ROOFS	3			3							
FLOORS	13			13							
GROUND, N.O.C.	45	1		45							1

## CHART I (CONTINUED)

 AGENCY  
 BY  
 ACCIDENT TYPE

	TOTAL	STRUCK BY OR STRIKING AGAINST	CAUGHT IN OR BETWEEN	FALLS	ACCIDENTS INVOLVING MOVING MOTOR VEHICLES	STRAIN OR OVEREXERTION	CONTACT WITH TEMPERATURE EXTREMES	INHALATION, ABSORPTION, OR SWALLOWING	CONTACT WITH ELECTRIC CURRENT	FOREIGN BODY IN EYE	OTHER, NOT STATED OR UNCLASSIFIED
WORKING SURFACES (CONTINUED)											
BACK OR BED OF STATIONARY VEHICLE	23	4		15							4
RUNNING BOARD, STEPS, FENDER, ETC. OF STATIONARY VEHICLES	9			9							
ALL OTHERS	16	1		15							
LADDERS	2	1		1							
CONTAINERS (PORTABLE, FULL OR EMPTY)	47	11	2	2		32					
BALES	19	4		1		14					
BARRELS, BOXES, DRUMS	7	3	1	1		2					
CANS	3	1				4					
SACKS	11	1				10					
ALL OTHERS	5	2	1			2					
TREES, LOGS, LUMBER	31	22	1	1		5				1	
TREES	7	5				2					
LOGS	6	1	1	1		3					
BRANCHES	9	9									
LUMBER	6	5				1					
ALL OTHERS	3	2								1	
PUMPS AND PRIME MOVERS	5	4	1								
MECHANICAL POWER TRANSMISSION APPARATUS	4	1	3								
FLYING PARTICLES, UNASSIGNED	43	1								41	1
ANIMALS	241	96	3	110		19		1			22
CATTLE	62	48		2		9		1			0
HORSES	154	37	3	107		2					0
OTHER DOMESTIC ANIMALS	18	10		1		2					0
INSECTS AND REPTILES	7	1									0
MOTION OR PRESSURE	8			2		5					1
ENVIRONMENTAL CONDITIONS	5							5			
MISCELLANEOUS	202	114	17	18		35	1			3	16
CABLE, CHAIN OR ROPE	10	3	5	1							
CRUTE	4		1								
DOORS AND CURTAINS	35	0	4	1		1					
HAY OR STRAW	12	18		1		6					

CHART 1 (CONTINUED)

 AGENCY  
 BY  
 ACCIDENT TYPE

	TOTAL	STRUCK BY OR STRIKING AGAINST	CAUGHT IN OR BETWEEN	FALLS	ACCIDENTS INVOLVING MOVING MOTOR VEHICLES	STRAIN OR OVEREXERTION	CONTACT WITH TEMPERATURE EXTREMES	INHALATION, ABSORPTION, OR SWALLOWING	CONTACT WITH ELECTRIC CURRENT	FOREIGN BODY IN EYE	OTHER, NOT STATED OR UNCLASSIFIED
MISCELLANEOUS (CONTINUED)						-					
HAY OR STRAW	12	5		1		6					
STOCK PARTS, MACHINES, ETC.	7	7									
METAL STOCK, SHEET, SCRAP, ETC.	7	3				1				3	
NAILS, SPIKES	12	12				4					
POLES OR POSTS	18	12	1	1		4					
ROCKS	10	4		1		5					
WIRE	17	15	1	1							
ALL OTHERS	90	41	5	11		18	1				15
TOTAL	1100	452	81	282	47	111	14	11	1	50	52



## CHART II

ACCIDENT TYPE  
BY  
BODY PART AFFECTED

TYPE:

	TOTAL	EYES	HEAD, FACE AND NECK	BACK AND SPINE	TRUNK, H.O.C.	ARMS	HANDS AND WRISTS	FINGERS	LEGS	FEET AND ANKLES	TOES	BODY, H.O.C. OR NOT STATED
STUCK BY OR STRIKING AGAINST	452	54	41	13	37	36	63	25	24	41	14	4
<u>OBJECT BEING HANDLED BY INJURED</u>												
DROPPED WHILE HOLDING	6				1					1	4	
HAND TOOLS, MACHINES IN USING	104	12	10	1	3	10	19	25	14	5	4	1
OTHERWISE INJURED IN HANDLING	49	1	3	4	4	2	12	18	5		4	
<u>OBJECTS NOT HANDLED BY INJURED</u>												
OBJECTS HANDLED BY OTHERS	6	1	1			1	2					
FALLING OR FLYING OBJECTS (INCL CHIPS, STOCK FROM HAND TOOLS OR MACHINES)	85	34	11	3	4	7	2	6	7	8	3	
STEPPING ON SHARP OBJECTS	10									10		
OTHER CONTACT WITH SHARP OBJECTS	41	2	1		1	2	15	13	7			
BUMPING INTO STATIONARY OBJECT	22	1	1	1	1	3	2	2	11			
MOVING EQUIPMENT, EXCEPT MOTOR VEHICLES	7				1	2	1		1		1	
OTHER MOVING OR ROLLING OBJECTS	9		2		2		1		2			
COLLAPSE OF PILES, STRUCTURES, EQUIPMENT	4					1		2		1		
OTHER	109	3	11	4	20	8	9	8	25	16	2	3
CAUGHT IN OR BETWEEN	81				1	5	15	44	7	4	4	1
<u>OBJECT BEING HANDLED AND OTHER OBJECT</u>	15						7			2		
MOVING EQUIPMENT, EXCEPT MOTOR VEHICLE												
AND OTHER OBJECT	1								1			
IN MACHINE OR MACHINE PART	38					4	7		3		3	
IN OTHER MECHANICAL APPARATUS	10				1		1	19		2	1	
OTHER	17					1	3	9				1
FALLS	262	2	18	58	46	37	19	2	41	55	1	3
ON THE SAME LEVEL	51	1	1	16	10	7	4		5	4		1
SLIP (NOT FALL)	29			10		3			6	10		
FROM ELEVATIONS	43		7	8	11	4	1		4	7		1
INTO EXCAVATIONS, SHAFTS, ETC.	1			1								
FROM MOVING EQUIPMENT EXCEPT MOTOR VEHICLES	5		1	1	1					1		1
SLIP OR FALL WHILE STEPPING ON, OFF OR OVER												
OBJECT, STAIRS AND STEPS.	36		2	6	3	5	2		4	14		
FALLS, FROM OR WITH ANIMALS	103	1	7	12	18	16	10		20	18	1	
FALLS OTHER, OR N.O.C.	14			4	3	2	2		2	1		
ACCIDENTS INVOLVING MOVING MOTOR VEHICLES	47		8	7	8	4	4		6	3	2	5
RUN OVER OR STRUCK BY	3				1						2	
CAUGHT BETWEEN MOVING VEHICLE AND OTHER OBJECT	2			1					1			
COLLISION WITH OTHER MOVING VEHICLE	1						1					
COLLISION WITH FIXED OR OTHER OBJECT	2			1								
OVERTURNING, RUNNING OFF ROAD	11		3		3	1			1			3
FALLS FROM	16		2	2	3	2	1		2	2		2

## CHART II (CONTINUED)

ACCIDENT TYPE  
BY  
BODY PART AFFECTED

TYPE:

	TOTAL	EYES	HEAD, FACE AND NECK	BACK AND SPINE	TRUNK, N.O.C.	ARMS	HANDS AND WRISTS	FINGERS	LEGS	FEET AND ANKLES	TOES	BODY N.O.C. OR NOT STATED
ACCIDENTS INVOLVING MOVING MOTOR VEHICLES (CONT.)												
STRUCK BY OBJECTS FALLING FROM OR SHIFTING												
LOAD	1			1								
OTHER OR NOT STATED	11	2		2	1	1	2		2	1		
STRAIN OR OVER EXERTION (EXCLUDING HEART)	111		2	65	23	13	2	2	3			2
WHILE LIFTING OR LOWERING	68			44	16	6	1					1
WHILE PUSHING OR PULLING	4			2	1	1						
WHILE HOLDING OR CARRYING	2			1	1							
WHILE USING TOOLS, MACHINES, AND EQUIPMENT	19			10	4	2	1	1	1			
OTHER AND NOT STATED	18		2	8	1	3		1	2			1
CONTACT WITH TEMPERATURE EXTREMES	14	3			1	3	2		1	2	1	1
(EXCEPT DUE TO EXPLOSION OR ELECTRICAL CAUSES)												
HOT SURFACE	1					1						
STEAM OR HOT WATER	1								1			
FIRE OR FLAME	1						1					
RADIATIONS, X-RAY, OR WELDING FLASH	2	2			1							
ENVIRONMENTAL CONDITIONS (SUN, COLD, DAMPNESS)	5	1			1					1	1	1
OTHER	4				2							2
INHALATION, ABSORPTION, AND SWALLOWING	11	3	1		2			1				4
INHALATION OF IRRITATING OR CORROSIVE												
SUBSTANCE	1											1
ABSORPTION OR OTHER SKIN CONTACT WITH												
IRRITATING OR CORROSIVE SUBSTANCE	6	1	1		2			1				1
OTHER	4	2										2
CONTACT WITH ELECTRIC CURRENT	1											1
EXPLOSION, FLASH-BACK, ETC.	3		1				1			1		
OTHER AND NOT STATED	96	55	1	5	3	5	6	9	2	2	3	5
BITES, STINGS, INCLUDING SNAKE BITES	15	1		1	1	2	2	5	1			2
FOREIGN BODY IN EYE	52		52									
OTHER N.O.C.*	9		1		1	1	1	1	1			3
NOT STATED	20	2		4	1	2	3	3		2	3	
TOTAL	1100	117	72	148	122	103	113	133	136	107	25	24

\*N.O.C. -- NOT OTHERWISE CLASSIFIED

## CHART III

NATURE OF INJURY  
BY  
BODY LOCATION

	TOTAL	EYES	HEAD, FACE AND NECK	BACK AND SPINE	TRUNK, N.O.C.*	ARMS	HANDS AND WRISTS	FINGERS	LEGS	FEET AND ANKLES	TOES	BODY, N.O.C. OR NOT STATED
AMPUTATION, LOSS OF, LOSS OF USE OF AMPUTATION, SEVERENCE LOSS OF TOOTH	13 9 4		4 4				1 1	0 0	1 1		1 1	
BURNS AND SCALDS CHEMICAL BURNS OTHER BURNS AND SCALDS	12 4 8	4 4				3 3	2 2		2 2	1 1		
CUTS, LACERATIONS, PUNCTURES, ETC., ABRASION OR SCRAPE IMBEDDED SPLINTER OR CHIP (EXCEPT EYE) ANIMAL OR INSECT BITE INFECTION FROM CUTS, ETC. CUTS, LACERATIONS, PUNCTURES, N.O.C.*	251 7 7 12 38 187	6 2 1 1 3	31 1		4 3	10 1 1 1 7	61 1 7	28 4 2 10 62	35 2 10 23	18 2 16	6 2	2 2
STRAINS, SPRAINS, DISLOCATIONS (EXCLUDING HEART)	284		9	116	17	33	15	4	22	38	1	
STRAIN OR SPRAIN DISLOCATION BURSITIS, SYNOVITIS, & TENOSYNOVITIS OTHER	207 37 9 1		9	95 21	11 5	19 7	14 1	3 1	19 2 1	36 1 1	1	
CRUSHING INJURIES	18		1		1	2	1	12			2	
FRACTURES	173		7	5	44	23	17	16	25	26	10	
HERNIA	20				20							
INDUSTRIAL DISEASES DERMATITIS & OTHER SKIN DISEASES EYES HEAT EXHAUSTION, SUNSTROKE, FROSTBITE, ETC. POISONING, INFECTIONS	12 4 1 2 5	2 1	1 1		2 1	2 1		1	1	1	1	1 1
BRUISES AND CONTUSIONS BRUISES AND CONTUSIONS INFECTION RESULTING FROM BRUISES AND CONTUSIONS	154 143 11	4 4	6 6	7 7	24 24	24 23	13 12	13 11	40 34	13 13	3 3	2 6
NATURE OF INJURY, OTHER ASPHYXIATION ELECTROCUTION *N.O.C.—NOT OTHERWISE CLASSIFIED	135 2 1	97	4	4	9	3	2	1	4	1	1	9 1

CHART III (CONTINUED)

NATURE OF INJURY  
BY  
BODY LOCATION

	TOTAL	EYES	HEAD, FACE AND NECK	BACK AND SPINE	TRUNK, H.O.C.	ARMS	HANDS AND WRISTS	FINGERS	LEGS	FEET AND ANKLES	TOES	BODY, H.O.C., OR NOT STATED
NATURE OF INJURY, OTHER (CONTINUED)												
CONCUSSION	2											2
FADING, DIZZINESS AND EPILEPTIC SEIZURE	1											1
FOREIGN BODY IN EYE	94	94										
INTERNAL INJURIES	8		1		5							2
OTHER INJURIES	27	3	1	4	4	3	2	1	4	1	1	3
INJURY NOT GIVEN OR INSUFFICIENT DATA	58	4	9	16	2	3	1	2	6	9	1	5
TOTAL	1100	117	72	148	122	103	113	133	136	107	25	24

CHART IV AGE AND MARITAL STATUS	MEN				WOMEN			
	TOTAL	SINGLE	MARRIED	NOT GIVEN	TOTAL	SINGLE	MARRIED	NOT GIVEN
Under 16	13	13						
16-19	96	89	3	4	3	3		
20-24	117	67	43	7	6	1	4	1
25-29	118	39	72	7	5	3	1	1
30-34	98	38	52	8	1	1		
35-39	91	31	52	8	6	2	3	1
40-44	125	49	71	5	4	3	1	
45-49	65	29	30	6	5		4	1
50-54	88	44	39	5	2		2	
55-59	49	24	20	5	3	1	2	
60-64	38	22	12	4	4	3	1	
65-69	25	12	11	2	4	3	1	
70-74	11	7	3	1	1		1	
75 and Over	7	5	2		2	1	1	
Age not given	<u>108</u>	<u>40</u>	<u>42</u>	<u>26</u>	<u>5</u>	<u>2</u>	<u>1</u>	<u>2</u>
TOTAL	1049	509	452	88	51	23	22	6

CHART V  
 TIME OF INJURY  
 BY MONTH AND  
 HOUR OF DAY  
 TIME

	TOTAL	JULY 1954	AUGUST 1954	SEPT. 1954	OCT. 1954	NOV. 1954	DEC. 1954	JAN. 1955	FEB. 1955	MARCH 1955	APRIL 1955	MAY 1955	JUNE 1955
1 A.M.	1										1		
2													
3	2	1											
4	1			1									1
5	7	5						1			1		
6	7	2						3		1	1		
7	29	2	2	7	3	1	1	2	1	2	5	2	1
8	57	11	4	7	5	2	4	4	2	5	3	5	5
9	76	12	7	5	10	1	6	7		7	11	6	10
10	157	26	22	12	10	10	8	1	14	12	12	10	14
11	100	21	12	12	6	3	3	5	6	5	6	11	10
12	19	6	2	2				2		1	2	2	2
1 P.M.	34	6	4	7	1	2	3	2	2	3	2		2
2	91	16	8	10	5	10	7	7	4	5	6	5	8
3	105	13	16	11	10	7	8	5	3	9	9	5	9
4	89	13	15	6	7	8	5	3	3	5	5	10	9
5	53	6	5	8	7		4	3	2	6	4	6	2
6	14	4	3	3	1		1						
7	14	3	6	2						1		2	1
8	10	3	3	1						1			1
9	6			1	2					2			
10	3			1		1					1		1
11												1	
12	3										1	1	1
Not Given	218	25	28	22	13	12	9	14	11	20	25	24	15
TOTAL	1096*	175	137	118	80	57	59	59	48	85	97	89	92

\* Four cases did not give either month or hour of injury.

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